### **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	10/632,847						
Source:							
Date Processed by STIC:							

# ENTERED



**IFWO** 

RAW SEQUENCE LISTING DATE: 02/16/2005
PATENT APPLICATION: US/10/632,847 TIME: 15:06:50

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1 <110> APPLICANT: BULLEID, NEIL J
 2 <120> TITLE OF INVENTION: PROCOLLAGEN ASSEMBLY
 3 <130> FILE REFERENCE: 39-189
 4 <140> CURRENT APPLICATION NUMBER: US/10/632,847
 5 <141> CURRENT FILING DATE: 2003-08-04
 6 <150> PRIOR APPLICATION NUMBER: US/09/380,377
 7 <151> PRIOR FILING DATE: 1999-09-16
 8 <150> PRIOR APPLICATION NUMBER: 9704305.3
 9 <151> PRIOR FILING DATE: 1997-03-01
10 <160> NUMBER OF SEQ ID NOS: 18
11 <170> SOFTWARE: PatentIn Ver. 2.0
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14 <211> LENGTH: 23
15 <212> TYPE: PRT
16 <213> ORGANISM: Homo sapiens
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18
19
         Leu Arg Leu Met Ser Thr Glu
20
21
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24 <211> LENGTH: 23
25 <212> TYPE: PRT
26 <213> ORGANISM: Homo sapiens
27 <400> SEQUENCE: 2
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30
31
33 <210> SEQ ID NO: 3
34 <211> LENGTH: 23
35 <212> TYPE: PRT
36 <213> ORGANISM: Homo sapiens
37 <400> SEQUENCE: 3
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39
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40
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44 <211> LENGTH: 23
45 <212> TYPE: PRT
46 <213> ORGANISM: Homo sapiens
47 <400> SEQUENCE: 4
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48
         Gly Asn Pro Glu Leu Pro Glu Asp Val Leu Asp Val Gln Leu Ala Phe
49
          1
                           5
50
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51
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54 <211> LENGTH: 22
55 <212> TYPE: PRT
56 <213> ORGANISM: Homo sapiens
57 <400> SEQUENCE: 5
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59
                                               10
60
         Arg Leu Leu Ser Ala Ser
61
63 <210> SEO ID NO: 6
64 <211> LENGTH: 22
65 <212> TYPE: PRT
66 <213> ORGANISM: Homo sapiens
67 <400> SEQUENCE: 6
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69
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70
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71
73 <210> SEQ ID NO: 7
74 <211> LENGTH: 22
75 <212> TYPE: PRT
76 <213> ORGANISM: Homo sapiens
77 <400> SEQUENCE: 7
78
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79
80
         Lys Leu Leu Thr Ala Ser
81
83 <210> SEQ ID NO: 8
84 <211> LENGTH: 22
85 <212> TYPE: PRT
86 <213> ORGANISM: Homo sapiens
87 <400> SEQUENCE: 8
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89
                                               10
90
         Arg Leu Leu Ser Val Ser
91
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93 <210> SEQ ID NO: 9
94 <211> LENGTH: 20
95 <212> TYPE: DNA
96 <213> ORGANISM: Artificial Sequence
97 <220> FEATURE:
98 <223> OTHER INFORMATION: Description of Artificial Sequence: RECOMBINANT
99
         PRIMER
100 <400> SEQUENCE: 9
        agatggtcgc actggacatc
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## RAW SEQUENCE LISTING DATE: 02/16/2005 PATENT APPLICATION: US/10/632,847 TIME: 15:06:50

Input Set : N:\Crf3\RULE60\10632847.raw.txt
Output Set: N:\CRF4\02162005\J632847.raw

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     104 <211> LENGTH: 32
     105 <212> TYPE: DNA
     106 <213> ORGANISM: Artificial Sequence
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     108 <223> OTHER INFORMATION: Description of Artificial Sequence: RECOMBINANT
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     110 <400> SEQUENCE: 10
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     114 <211> LENGTH: 21
     115 <212> TYPE: DNA
     116 <213> ORGANISM: Artificial Sequence
     117 <220> FEATURE:
     118 <223> OTHER INFORMATION: Description of Artificial Sequence: RECOMBINANT
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               PRIMER
     120 <400> SEQUENCE: 11
     121
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     124 <211> LENGTH: 32
     125 <212> TYPE: DNA
     126 <213> ORGANISM: Artificial Sequence
     127 <220> FEATURE:
     128 <223> OTHER INFORMATION: Description of Artificial Sequence: RECOMBINANT
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     130 <400> SEQUENCE: 12
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                                                                                   32
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     134 <211> LENGTH: 21
     135 <212> TYPE: PRT
     136 <213> ORGANISM: Homo sapiens
     137 <220> FEATURE:
     138 <223> OTHER INFORMATION: Description of Artificial Sequence: Unknown
     139 <220> FEATURE:
     140 <221> NAME/KEY: Unsure
     141 <222> LOCATION: (13)..(18)
     142 <223> OTHER INFORMATION: Xaa is any naturally occurring amino acid, or no amino acid
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     143 <400> SEQUENCE: 13
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     145
     146
               Xaa Xaa Ser Ser Arg
     149 <210> SEQ ID NO: 14
     150 <211> LENGTH: 22
     151 <212> TYPE: PRT
     152 <213> ORGANISM: Homo sapiens
     153 <220> FEATURE:
     154 <223> OTHER INFORMATION: Description of Artificial Sequence: Unknown
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155 <220> FEATURE:

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PATENT APPLICATION: US/10/632,847 TIME: 15:06:50

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     157 <222> LOCATION: (13)..(19)
     158 <223> OTHER INFORMATION: Xaa is any naturally occurring amino acid, or no amino acid
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     161
                                                     10
     162
               Xaa Xaa Xaa Ser Ser Arg
     163
     165 <210> SEQ ID NO: 15
     166 <211> LENGTH: 9
     167 <212> TYPE: PRT
     168 <213> ORGANISM: Homo sapiens
     169 <400> SEQUENCE: 15
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     173 <210> SEQ ID NO: 16
     174 <211> LENGTH: 250
     175 <212> TYPE: PRT
     176 <213> ORGANISM: Homo sapiens
     177 <400> SEQUENCE: 16
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     179
     180
               Val Asp Thr Thr Leu Lys Ser Leu Ser Gln Gln Ile Glu Asn Ile Arg
     181
                            20
                                                 25
     182
               Ser Pro Glu Gly Ser Arg Lys Asn Pro Ala Arg Thr Cys Arg Asp Leu
     183
                                             40
               Lys Met Cys His Ser Asp Trp Lys Ser Gly Glu Tyr Trp Ile Asp Pro
     185
     186
               Asn Gln Gly Cys Asn Leu Asp Ala Ile Lys Val Phe Cys Asn Met Glu
     187
     188
               Thr Gly Glu Thr Cys Val Tyr Pro Thr Gln Pro Ser Val Ala Gln Lys
     189
                                                     90
     190
               Asn Trp Tyr Ile Ser Lys Asn Pro Lys Asp Lys Arg His Val Trp Phe
     191
                                                105
     192
               Gly Glu Ser Met Thr Asp Gly Phe Gln Phe Glu Tyr Gly Gly Gln Gly
     193
                                            120
     194
               Ser Asp Pro Ala Asp Val Ala Ile Gln Leu Thr Phe Leu Arg Leu Met
     195
                                       135
     196
               Ser Thr Glu Ala Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Val
     197
                                                        155
                                   150
     198
               Ala Tyr Met Asp Gln Gln Thr Gly Asn Leu Lys Lys Ala Leu Leu Leu
     199
     200
               Lys Gly Ser Asn Glu Ile Glu Ile Arg Ala Glu Gly Asn Ser Arg Phe
     201
     202
               Thr Tyr Ser Val Thr Val Asp Gly Cys Thr Ser His Thr Gly Ala Trp
     203
                                            200
                                                                205
     204
               Gly Lys Thr Val Ile Glu Tyr Lys Thr Thr Lys Thr Ser Arg Leu Pro
     205
                                       215
     206
               Ile Ile Asp Val Ala Pro Leu Asp Val Gly Ala Pro Asp Gln Glu Phe
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PATENT APPLICATION: US/10/632,847 TIME: 15:06:50

207		225					230					235					240
208		Gly	Phe	Asp	Val	Gly	Pro	Val	Cys	Phe	Leu						
209		-		-		245			•		250						
	<210>	SEO	ID I	Or	L7												
	<211>																
	<212>																
		ORGANISM: Homo sapiens															
		SEQUENCE: 17															
216	11007	_		Arg	_	Asp	Gln	Pro	Ara	Ser	Δla	Pro	Ser	T.e.11	Ara	Pro	Lvs
217		1	-1-			5	0111		**** 9		10		001	<b>D</b> Cu	9	15	шуы
218			Tvr	Glu	Val	Asp	Δla	Thr	T.e.11	Lvs		T.e.11	Δan	Δen	Gln		Glu
219			-1-	0	20	1101				25	001				30		O.L.
220		Thr	Len	Leu		Pro	Glu	Glv	Ser		Lvs	Δsn	Pro	Δla		Thr	Cvs
221			Deu	35		110	Olu	O <sub>T</sub>	40	my	цуз	ADII	110	45	n-9	1111	Cys
222		Ara	Asn	Leu	Ara	T.e.11	Ser	His	_	Glu	Trn	Ser	Ser		Tur	Tur	Trn
. 223		nr 9	50	ыси	my	пси	DCI	55	110	GIU	11p	Der	60	Gry	T Y T	1 y L	115
224		Tle		Pro	Δen	Gln	Glv		Thr	Mot	Glu	Δla		T.ve	V=1	Tur	Cve
225		65	тор	110	Abii	GIII	70	Cys	1111	Nec	O.L.u.	75	110	цуз	val	1 <b>y</b> 1	80
226			Dhe	Pro	Thr	Glv		Thr	Cve	Tla	Δτα		Gln	Dro	Glu	Aen	
227		тэр	FIIC	110	1111	85	GIU	1111	Cys	116	90	Ara	GIII	FIO	GIU	95	116
228		Dro	λlo	Lys	Acn		Тиг	λνα	Sor	Sor		7 cn	Lazo	Tvc	ui.c		Trn
229		PIO	мта	пур	100	пр	TYL	Arg	ser	105	ьуѕ	Asp	гур	гур	110	val	пр
230		Τ Ο 11	C1.,	C1,,		T10	N an	7 l -	C1**		C1 5	Dho	C1.,	m		1707	C1.,
231		ьец	Gry	Glu 115	1111	116	ASII	ALA	120	ser	GIII	Pile	GIU	_	ASII	val	GIU
232		C111	77-1	Thr	802	Tarc	C1,,	Mot		The	C1 n	T 011	. ד ת	125	Mot	7.~~	T 011
232		GLY	130	TIIT	ser	пåя	GIU	135	нια	1111	GIII	Leu		Pile	Met	Arg	Leu
234		T 011		7 an	T1 +2	777	602		7 02	Tla	The	Пт +**	140	Crra	T	7 ~~	Com
		145	Ala	Asn	TAT	AIA		GIII	ASII	тте	IIII	_	нтв	Cys	ьуѕ	ASII	
235 236			71-	Тил	Mot	7 02	150	C1,,	Th.~	C1	7 02	155	Tvc	T	71-	7707	160
		116	нта	Tyr	Mec	_	GIU	GIU	1111	GIY		ьеu	пуъ	пÀр	AIA		тте
237		T 011	C1 m	c1	Com	165	7 ~~	7707	~1	T 011	170	77.	<u>ما</u>	a1	7 ~~	175	7. ***
238		пеп	GIII	Gly		ASII	ASD	vai	GIU		vai	Ата	GIU	GIY		Ser	Arg
239 240		Dho	Πh ∞	П	180	7707	T 011	17 ]	7 ~~	185	C	Com	T	T	190	7. ~~	<b>G</b> 1
		PIIC	1111	Tyr 195	1111	vai	ьец	vai	_	GIY	Cys	ser	тув	_	1111	ASII	GIU
241 242		m~~	C1	Lys	mh w	т1.	т1.	<b>~1</b>	200	T	mb	7 ~~	T	205	C	7	T
243		тър	210	цув	1111	116	116	215	TAT	пуѕ	1111	ASII	<u>гу</u> в	PIO	ser	Arg	neu
		Dro		T 011	7.00	T10	ח ד ת		T 011	7 ~~	T1.	C1		777	7 ~~	IIi a	C1
244			Pile	Leu	Asp	116		PLO	теп	Asp	116		GIY	Ala	Asp	птъ	
245		225	Dho	1707	7 ~~	т1.	230	Desc	7707	C	nh e	235					240
246		Pne	Pne	Val	Asp			PIO	vai	Cys		гар					
247	-210-	CEO	TD N	10. 1		245					250						
		SEQ ID NO: 18															
	<211>																
	<212>																
		ORGANISM: Homo sapiens															
	<400>	SEQUENCE: 18 Tyr Tyr Gly Asp Glu Pro Met Asp Phe Lys Ile Asn Thr Asp Glu Ile															
254			ıyr	σтУ	Asp		Pro	met	Asp	rne		тте	Asn	ınr	Asp		тте
255		1	m\	0	T	5	O	77 T	<b>3</b>	<b>~</b> 1	10	-7.	<b>a</b> 2 .	<b>a</b>	T	15	<b>.</b>
256		met	Inr	Ser		ьys	ser	vaı	Asn	_	GIN	тте	GIU	ser		тте	ser
257					20					25					30		

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 02/16/2005 PATENT APPLICATION: US/10/632,847 TIME: 15:06:51

Input Set : N:\Crf3\RULE60\10632847.raw.txt
Output Set: N:\CRF4\02162005\J632847.raw

#### Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:13; Xaa Pos. 13,14,15,16,17,18 Seq#:14; Xaa Pos. 13,14,15,16,17,18,19

### Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:13; Line(s) 142 Seq#:14; Line(s) 158

#### VERIFICATION SUMMARY

PATENT APPLICATION: US/10/632,847

DATE: 02/16/2005 TIME: 15:06:51

Input Set : N:\Crf3\RULE60\10632847.raw.txt
Output Set: N:\CRF4\02162005\J632847.raw

L:144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0

M:341 Repeated in SeqNo=13

L:160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0

M:341 Repeated in SeqNo=14